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HERS II SIMPLIFIED

Presented

by

Mike Bachand

WHAT IS HERS II?

- ☐ HERS II is Whole House Energy Rating based on a *House As A System Approach*
 - ☐ Approved By CEC
- ☐ Recommends most cost effective improvements
 - ☐ Creates “loading order”
 - ☐ Gives most effective order in which to make improvements
- ☐ How much energy bills be will reduced
- ☐ Change the order of improvements to suit homeowner
- ☐ Educate homeowner how occupant behavior effects energy bill

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HERS II IS THE FUTURE

- ☐ Why You Should Get Your HERS II Certification
 - ☐ Who Uses HERS II Raters
 - ☐ What About Sustainability
 - ☐ How Much Time/Money
 - ☐ Transfer Existing Training
- ☐and More



WHY YOU SHOULD GET HERS II CERTIFIED

- ☐ Over \$100 million in ARRA funds will be spent on retrofits
- ☐ Many programs require HERS II Raters
 - ☐ Municipal, Utilities, PACE (if retained)
 - ☐ HomeStar, National Energy Retrofit Guidelines may use
 - ☐ Realty
- ☐ Other Related work
- ☐ HERS II seeks sustainability and growth of industry
- ☐ Other certifications do not meet HERS II requirements

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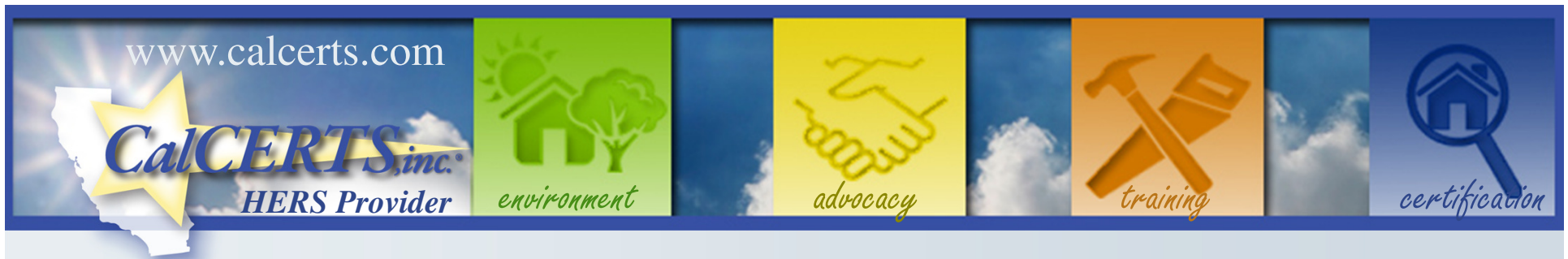
WHO USES HERS II RATERS

- ☐ Energy Efficient Mortgages
- ☐ Building Performance Contractors
- ☐ Real Estate transactions in the future?
- ☐ Federally Funded Grant Programs - ARRA
- ☐ HomeStar? EnergyStar
- ☐ Utilities
- ☐ John Q Public
- ☐ Title 24 Compliance (Existing and New Construction)



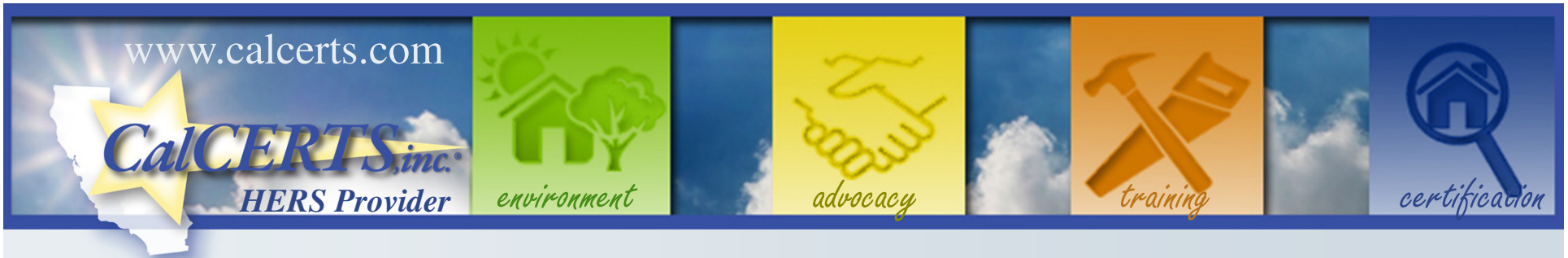
SUSTAINABILITY

- ☐ Foundations are being established right now with Federal & Private \$\$\$
- ☐ Planners are looking forward several years
- ☐ Training and participation are very high
- ☐ There are layers of possibilities
- ☐ Crosses the boundaries of many trades and business opportunities
- ☐ Builds jobs and payrolls
- ☐ Provides real value



BECOMING A HERS II RATER

- ☐ Must be trained by and registered with an approved HERS II Provider
 - ☐ Currently, CalCERTS is the only approved HERS II Provider
- ☐ Classroom, Hands-On Lab, Approved Computer Software, Field Test
- ☐ Must be also be a Title 24 Compliance Rater
- ☐ Transfer existing training up to current level, then complete the rest



TIME & COST TO GET CalCERTS CERTIFICATION

- ☐ Starting from no training, and no transfer of current certification:
 - ☐ Compliance Rater: \$1700-\$1800
 - ✓ 4 Days Classroom + 1 Day Lab + Field Test + Computer
 - ☐ HERS II Rater: \$2800-\$2900 (includes above)
 - ✓ Compliance Rater + 3 Days Class + Field Test
 - ☐ Building Performance Contractor (approval pending): \$3900-\$4000
 - ✓ HERS II + 2 Days Classroom + Field Test (pending approval)

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TRANSFER YOUR CURRENT TRAINING

- ☐ Demonstrate current standing (e.g. New Construction Rater)
- ☐ Pass a written exam based on level of entry (proctored, open book)
- ☐ Do a Field Test or show completed inspection documents
- ☐ Take the 3 Day HERS II class and pass written exam
- ☐ Pass field test and do computer entry

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CalCERTS Certified HERS II Raters Are Super Raters

- ☐ Not just HERS II
- ☐ Alteration/Changeouts (some retrofits & programs will do this)
- ☐ New Construction (work with builders, Energy Star, etc.)
- ☐ MultiFamily
- ☐ Other classifications available:
 - ☐ Refrigerant Charge and EPA 608
 - ☐ NonRes
 - ☐ Solar NSHP
 - ☐ Above Code Programs
 - ☐ Federal Tax Credits

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...AND MORE



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Genesis—RTR

U.S. DEPARTMENT OF
ENERGY | Energy Efficiency & Renewable Energy

Recovery Through Retrofit

May, 2009: Vice President Biden called on the Council of Environmental Quality to develop a plan for Federal action to lay the architecture for a self-sustaining home energy efficiency retrofit industry.



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Microsoft Office Live Meeting - livemeeting.com - National Residential Retrofit Guidelines: Update & Opportunities to Engage

Attendees (810) Voice & Video Q&A Meeting Feedback: [Green Status Icon]

RTR Six Recommendations

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

- Develop a National Home Energy Performance Measure and Audit Tool
- Develop Energy Performance Scale & Label for Homes
- Support Municipal Energy Finance Programs
- Improve Energy Efficiency Mortgages
- Expand State Energy Revolving Loan Funds
- Establish Voluntary National Standards for Workforce Certification and Training Program Accreditation**

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Attendees (845) Voice & Video Q&A Meeting Feedback: [Green] [Blue]

Retrofit Work Pyramid

Description		Developed By
Techniques, methods, or processes believed to be the most efficient and effective way of meeting the Standard Work Specifications	Best Practices	Companies, retrofit crews, or individuals
Sets of guidelines or rules that govern work procedures and often invoke Technical Standards	Work Protocols	Retrofit program administrators or individual companies
Define the performance requirements for high quality work and minimum conditions needed to achieve desired outcomes	Standard Work Specifications*	Technicians and retrofit industry representatives (including building trades, manufacturers, and building scientists)
Define safety, materials, installation, and application standards relevant to residential retrofits	Technical Standards*	Industry or third-party standards development organizations—for example, ASHRAE, ASTM, and BPI

*** National Residential Retrofit Guidelines**

Draft Deliberative, For Discussion Purposes Only, Not for Citation

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U.S. DEPARTMENT OF **ENERGY** Energy Efficiency & Renewable Energy eere.energy.gov

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HERS Provider



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Attendees (858) Voice & Video Q&A Meeting

Feedback: [Green bar] [Icon]

U.S. DEPARTMENT OF
ENERGY | Energy Efficiency & Renewable Energy

Four Residential Retrofit Job Classifications

Energy Auditor

Installer/
Technician

Crew Chief

Quality Assurance Inspector

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Attendees (851) Voice & Video Q&A Meeting Feedback: [Green Status Icon]

Guidelines to Credentials

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

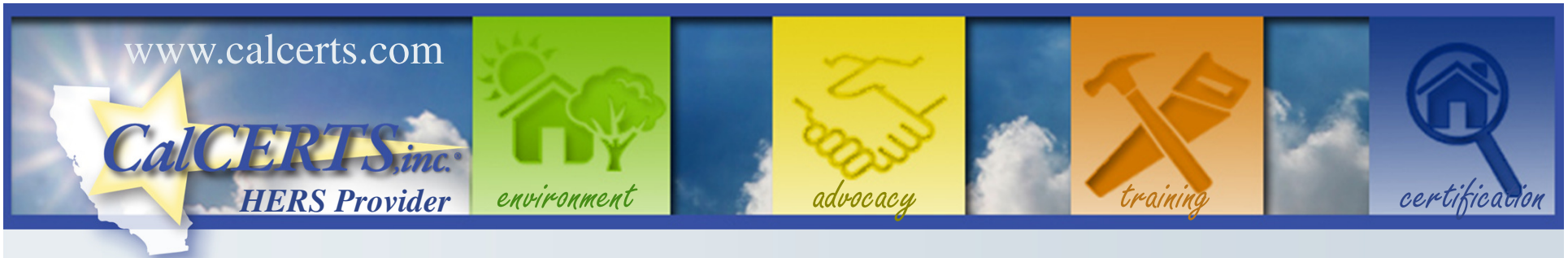
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graph TD; A[National Residential Retrofit Guidelines] --> B[Worker Certification Architecture]; B --> C[Training Program Accreditation Architecture];
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National Residential Retrofit Guidelines

Worker Certification Architecture

Training Program Accreditation Architecture

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BPA vs HERS II

- ☐ Complimentary but different disciplines
- ☐ One or the other or both may be written into funded programs
- ☐ Neither reciprocally recognizes the other
- ☐ HERS II encompasses Whole House Performance and Title 24
 - o Separately or in tandem
 - o Requires Home Occupant education on Whole House Audit/Rating
- ☐ BPA encompasses health and safety issues

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HERS Provider



ALPHABET SOUP...

- ☐ BPI = Building Performance Institute
 - ☐ Offers Accreditations based on curricula and exam completion
- ☐ BPI Affiliate
 - ☐ Can teach BPA using approved curriculum
 - ☐ Can Proctor Exams
- ☐ BPI Field Proctor
 - ☐ Can proctor the Field House Test requirement
- ☐ BPA = Building Performance Analyst
 - ☐ One of the BPI Accreditations
 - ☐ Analyzes building based on holistic approach
- ☐ Building Performance Institute Accredited Contractor



...to NUTS

- ☐ HERS II Rater = California Whole House Home Energy Rater
- ☐ HERS II Analyst = California Whole House Home Energy Analyst
 - ☐ Does computer simulation, but does not acquire field data
- ☐ HERS II Home Energy Inspector = California Whole House Home Energy Inspector
 - ☐ Gathers data to pass to Analyst & helps educate occupants
- ☐ HERS I Rater = California Field Verification & Diagnostic Testing Rater
 - ☐ Does Title 24 Compliance at various levels
- ☐ Building Performance Contractor = B License + Whole House Rater on staff (not part of BPA nor CBPCA) Health and Safety Issues



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...to NUTS

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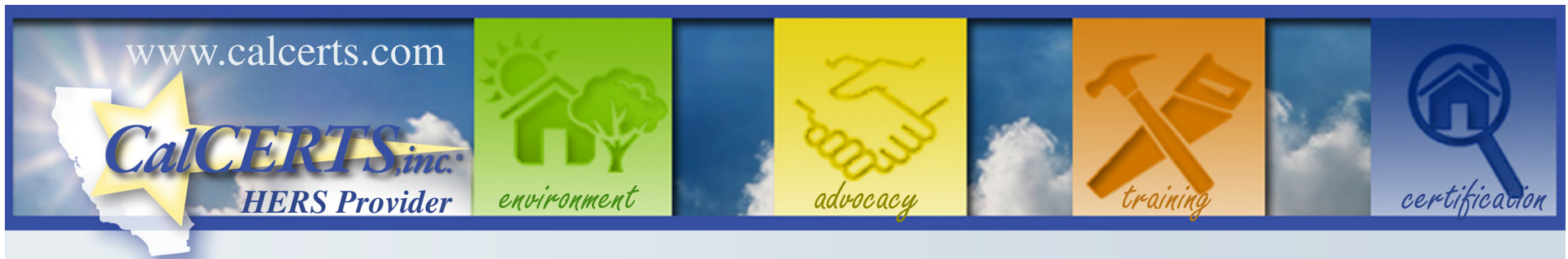
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Be ALL You Can BE

- ☐ HERS Raters do the audits, make recommendations, educate the occupants via APPROVED SOFTWARE - CalRATEpro
- ☐ HERS Raters provide Quality Assurance assistance through education and auditing of jobs
- ☐ Contractors can/should become HERS II Certified
- ☐ Contractors use Raters --- Contractors and Raters should be shaking hands
- ☐ Don't forget about the Title 24 part of the retrofits



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- ☐ Click on the Training tab on the left and snoop around or start your training (no classes in your area? Call 916-985-3400 and tell us or email us at Training@calcerts.com)
- ☐ Talk to contractors, other in the business – be proactive
- ☐ Go to utility websites, & your gov't websites and look for "green" or "sustainability" or "rebate" or "incentives" or "retrofit"
- ☐ Visit CalCERTS.com periodically to see new developments for your area
- ☐ CalCERTS will keep timely info available to help all stakeholders access the jobs, funds and opportunities that are available --- but don't wait